

Appln No. 09/927,779

Amdt date May 18, 2004

Reply to Office action of February 26, 2004

**REMARKS/ARGUMENTS**

In response to the supplemental restriction requirement of February 26, 2004, Applicants make the following elections and comments.

In a restriction requirement issued September 29, 2003, the Examiner requested that Applicants elect from between three inventions. In a communication filed December 1, 2003, Applicants elected to prosecute the claims to invention I, namely 1 to 28, and 32. Applicants affirm that earlier election with this response.

Now the Examiner requests that Applicants elect a species selected between the embodiments of invention I shown in Figures 2, 3a, 3b, 3c, 3d, 3e, and 3f. First, pursuant 35 U.S.C. § 121, Applicants elect, with traverse, to prosecute claim 4, which is shown schematically in Figures 1, 2, and 3c. Applicants cannot understand the Examiner's position that each of the cited figures shows a different species.

The Examiner also requires that Applicants identify "a listing of all claims readable thereon." Applicants make the following listing. Claims 1 to 3, 11 to 28 and 32 are generic to any of the identified "biofunctionalized resonators" of the current invention, i.e., each of these claims merely further defines properties, materials, or resonator designs that could be equally applicable to any of the sensor designs shown schematically in any of Figures 1 to 3f.

With regard to claims 4 to 10, Applicants cannot agree that each of the claims relates to a different "patentably distinct" species. Specifically, Applicant submits that all of the

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sensors claimed are related to the general inventive concept of "bifunctionalized" microcantilever sensors, as recited repeatedly in specification and claims of the application. The Examiner points out as individual species merely alternative biofunctionalizations of the sensors. Indeed, throughout the application, Applicant stresses the interrelatedness of the various biofunctionalizations, which were chosen for inclusion because of their related properties and potential uses. Together, these biofunctionalizations define a class of sensors, which are capable of detecting individual target molecules in a sample. (Specification, Abstract.) Accordingly, Applicant sees no reason why it would be any more difficult to conduct a search for one verse all of the cited subspecies of the general inventive sensors.

Further, even were the Examiner to contend that the individual species were unrelated, Applicant can find no reason for the Examiner's division of the claims into seven different species. Such a division is both excessive and overly restrictive. Specifically, a brief review of the claims and the text of the application make it clear that at most there are only two subspecies to the general inventive concept of a biofunctionalized molecular sensor, namely those sensors in which the biofunctionalization acts alone, (claims 4, 27, and 28; shown in Figures 1, 2, and 3c), and those sensors in which two adjacent biofunctionalizations interact together (claims 5 to 10; shown in Figures 3a, 3b, 3d, 3e, and 3f).

However, despite these two definable subspecies Applicant maintains that the "single general inventive concept" cited as

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lacking by the Examiner is clearly present, both in the claims, and in a review of the full discussion of the specification. Indeed, the specification clearly recites:

A biofunctionalized nanoelectromechanical device (BioNEMS) capable of sensing single molecules in solution by measuring the variation in the resonance motion of the BioNEMS resonator device during a binding event is described herein.

(Specification, page 8, lines 3 to 5.)

In light of this teaching, Applicant submits that the scope of the invention and the general inventive concept are clearly well-defined by both the claims and the specification. Accordingly, Applicant respectfully request withdrawal of the requirement for a 7 way division of the application, and a full examination of all the claims of invention group I.

The Examiner is kindly requested to call the undersigned attorney should she deem that this response does not fully address the issued restriction requirement. In such case, applicants further request additional opportunities to submit amendments or arguments as necessary.

Respectfully submitted,

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